92. Unified categorical Modelling System



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<u>Probabilidad Imposible: Unified categorical Modelling System</u>

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The unified <u>categorical Modelling System</u> is the first step in the third stage of the fourth phase. The fourth phase is the <u>Unified Application</u> as a result of the unification of all the conceptual databases of categories of as many <u>Specific Artificial Intelligences for Artificial Research by Application</u>, being this unified database of categories the first stage of the Unified Application. The types of Artificial Research able to carry out the Unified Application go from heuristic to productive including mixed, which means that the Unified Application must include Heuristic Artificial Researches by Application, Productive Artificial Research by Application, and Mixed Artificial Research by Application.

All the Specific Intelligences by Applications englobed within the Unified Application (during the unification process of conceptual databases of categories as the first stage of the Unified Application) are transformed into specific applications in the second stage of the Unified Application, working within the Unified Application as global application in the second stage.

What the global application and the specific applications are going to do in the second stage of the Unified Application is basically to read/track the world, matching every single real object of reality with the corresponding category within the database of categories. Later on according to what type of artificial research corresponds to the artificial research made in the second stage, the auto-replication to do as the third stage could be classified as heuristic, productive, mixed. Heuristic when as a result of reading/tracking the world is necessary to include in the database of categories a new category corresponding to a new object without category within the existing categories in the database. Productive when as a result of reading/tracking the world are made some decisions regarding some specific production system. Mixed when after a new heuristic discovery is possible to make decisions about how to use it within the production system this new object/category.

The periods for the construction of the Unified Application must include at least two big different periods, the period of coexistence and the period of consolidation, and the period of coexistence could be subdivided into two moments, a first moment of experimentation and a second moment of generalization.

The period of coexistence englobes these two moments of experimentation and generalization because, by the time that the first experiments of the Unified Application starts, the Unified Application is only a scientific project without any responsibility over the reality.

What in the reality is still working are the Specific Artificial Intelligences by Application, and while the Unified Application is only an experimental project, as an experiment the Unified Application is not any working on the reality, the real world.

The transition from the experimentation moment to the consolidation period takes place in the generalization moment, when after successful results during the experimentation, once the way to join different conceptual databases of categories as first stage of the Unified Application, transforming their former specific intelligences into specific applications within the second stage of the Unified Application, once experiments on this matter have successful results joining in one database the first experimental databases of categories, starting working their intelligences now as specific applications, the second moment of generalization what is going to do is generalize the procedures of these successful experiments in as many specific intelligences by Application as possible. As long the generalization process is advancing in the inclusion of more and more specific intelligences, as soon these specific intelligences are absorbed by the Unified Application , the intelligence which is going to start working on those specific sciences, disciplines, activities, is not the former specific intelligence any more, the intelligence which is going to start working directly over those specific sciences, disciplines, activities is directly the Unified Application.

Once the Unified Application has been able to move forward starting working in a sufficient number of specific sciences, disciplines, activities, is when the generalization process has been completed achieving the consolidation period.

Some of the experiments necessary to carry out during the first moment of experimentation are related to the organization of the conceptual database of categories

as the first stage of the Unified Application, how the second phase of the Unified Application is going to track/read the reality, and in the third stage how is going to work depending on the purpose of the artificial research carried out in the second stage.

In the <u>third stage</u>, there will be basically three different procedures, depending on what type of artificial research was carried out by the specific application or the global application, these procedures are heuristic, productive, mixed, for the inclusion of new categories, the production of goods or services, or the inclusion of new categories in the production system.

Depending on the purpose of the artificial research done in the second stage (heuristic, productive, mixed) the processes to carry out in the third stage are quite different. If the artificial research made in the second stage was only heuristic, understanding for third stage as comprehensive knowledge objective auto-replication, the processes to carry out will consist of the inclusion of the new category in the conceptual databases of categories.

If the artificial research carried out in the second stage was productive, the processes to be carried out in the third stage will be developed in three steps: the unified categorical Modelling System, the unified categorical Decisional System, the unified categorical Application System.

If the artificial research carried out in the second stage was mixed, the possible finding of new categories able to be included in the production system, for instance, new developments of artificial genetics applied to the production of food, the inclusion of the new categories of food to the conceptual database categories in addition to all those processes to be developed along the three steps in the third stage for the production of that new food, steps synthesised in the unified categorical Modelling System, Decisional System, Application System.

Regardless of what type of artificial research is done in the second stage, and what processes and steps are done in the third stage, finally the whole organization of the Unified Application will be as a whole evaluated in the unified categorical Learning System, assessing the whole structure from the organization of the conceptual database of categories as first stage, how the artificial research is done in the second stage, and

the procedures taken in the third stage according of what type of research was done in the second stage.

About the organization of the conceptual database of categories as first the stage of the Unified Application what is very important since the first moment of experimentation in the coexistence period, is the possibility of organizing the database in harmony with the criteria used in the organization of the global matrix in the standardization process in the third phase.

If at the beginning the first application in mineralogy was only the taxonomy of minerals, so according to the application (the taxonomy of minerals), given any sample of minerals, was possible to compare the quantitative description of every category in the taxonomy, with the measurements taken from the sample, to match what category corresponds to this sample, as the second stage of artificial research, in order to include in the database of categories any new possible new mineral not included yet in the application, as long as this technology evolves, the conceptual database of categories of minerals can evolve from only a taxonomy to be transformed into conceptual database of categories able to be organized as a Russian Dolls system based on the sub-factoring system (position) and the sub-section system (subject), to become the positional encyclopedia of minerals.

The way to transform a specific database of minerals as only a taxonomy of minerals into a positional encyclopedia of minerals is at some point mixing the taxonomy of minerals and the comprehensive map of minerals as the third sub-stage within the second stage in the specific categorical Modelling System, as the first step in the third stage in the first phase.

The synthesis of the specific conceptual database of categories as only a taxonomy, classification, catalogue, of concepts related to some specific science, discipline, activity, and the comprehensive map in the third sub-stage of the second stage of the specific categorical Modelling System, is going to give the opportunity to transform the conceptual database of categories into a positional encyclopedia where to find what minerals are located in every position.

If transforming the specific conceptual database of categories as first stage of the Unified Application into a positional encyclopedia, as positional encyclopedia now the database of categories is organized under the criteria of sub-factoring level and sub-section level,

what items of every encyclopedic section are in every position, the third stage of the Unified Application will not only consist in the inclusion of new categories when a real object does not match respect to any category in the taxonomy/classification/catalogue, regardless of what type of artificial research is done in the second stage of the Unified Application, as soon in any position finds out a existing categories in other different position but not in this one, even being a category already existing in the taxonomy/classification/catalogue, even existing the category in the conceptual database, but not having been added yet to that position, as third stage of autoreplication the category will be added to that position where the category was not labelled yet, but was found in that position during the artificial research in the second stage of the Unified Application.

This evolution from the first Specific Artificial Intelligence for (Heuristic, Productive, or Mixed) Artificial Research by Application whose first stage as conceptual database of categories is formed only by a specific classification/catalogue/taxonomy of its specific science, discipline, or activity, to become a Specific Artificial Intelligence for (Heuristic, Productive, or Mixed) Artificial Research by Application whose first stage as conceptual database of categories is a Russian Dolls system where all the categories related to that specific science, discipline, activity are organized according to the criteria of subfactoring level and sub-section, replicating the organization of sub-sections of a encyclopedia of its specific science, discipline, activity, in every position of the comprehensive map (third sub-stage in the second stage of the first step of the third stage of the first phase), is an evolution possible to be done, along the transition from the first experimentation period to the consolidation period in the first phase during the formation of the first specific intelligences by Application, upgrading gradually the first stage of the specific intelligences by application as soon the comprehensive map, third sub-stage of the second stage of the specific categorical Modelling System, is ready to be mixed with the conceptual database of categories as only a taxonomy, catalogue, or classification.

Understanding the evolution in the construction of the first specific intelligences by Application a gradual development of the first stage from the first specific taxonomies of some specific science, discipline, activity, up to become a specific positional encyclopedia of those specific sciences, disciplines, activities, once the specific intelligences by application have achieved finally the consistency of specific positional encyclopedias, the first experiments in the fourth phase for the construction of the first stage of the Unified Application must consist of how to join different specific positional encyclopedias, different specific Russian Dolls systems, into only one global positional encyclopedia, only one Russian Dolls system, where per every position on the global comprehensive map, could be labelled in encyclopedic sub-sections system all possible

category, transforming the conceptual database of categories into a database organized according to the criteria of sub-factoring level and sub-section, alike the organization of the global matrix in the standardization process, third phase.

About the second stage of the Unified Application, the artificial research itself, where to read/track the real world, the experiments to be carried out in the first moment of the coexistence period should be related to how to organize the global artificial research by Application within the Unified Application being aware that must co-work together the Artificial Research by Application of the Unified Application as a global application, and the specific applications coming from former Specific Artificial Intelligences for Artificial Researches by Application transformed now into specific applications within the Unified Application as global application in the Artificial Research by Application.

In other words, in the second stage of the Unified Application, the Unified Application as global application will read/track the global world, while specific applications specialised in specific sciences, disciplines, activities, will read/track those specific parts of the world related to their specific sciences, disciplines, activities.

As soon a Specific Artificial Intelligence for Mixed Artificial Research by Application in mineralogy is absorbed by the Unified Application, the first stage as conceptual database of categories is included in the first stage of the Unified Application, the second stage of that Specific Artificial Intelligence as specific Mixed Artificial Research by Application in mineralogy becomes now a specific application for mineralogy within the second stage of the Unified Application, what means that this specific application for mineralogy within the second stage of the Unified Application will have as main responsibility to read/track the reality to label every single mineral of the world according to the taxonomy, and finding out a new mineral not included yet in the taxonomy, as comprehensive knowledge objective auto-replication, the third stage will consist of the addition of this new category within the taxonomy, or finding out within the positional encyclopedia that any mineral, existing or not in the taxonomy, has not been included yet in that position, as comprehensive knowledge objective auto-replication the inclusion of this mineral in that position in the positional encyclopedia, in addition of other possible productive decisions to be carried out by the categorical Modelling, Decisional, Application Systems.

In the second stage of the Unified Application, every specific application (former Specific Artificial Intelligence by Application) will go on working on its matter with the difference

that now the conceptual database of categories is not specific, is unified, so every specific application will have access to absolutely any category from all science, discipline, or activity, what is relevant when some sciences, disciplines, activities, can share some categories, or are categories common in different sciences, disciplines, activities. In any case, the organization of the labour within the second stage using this model of labour division between different specific applications will facilitate and make faster the artificial research by Application.

In the second stage of the Unified Application, the experimentation moment in the coexistence period must be focused on how to organize under the virtue or principle of harmony how every specific application works, the distribution of what artificial research is specific to every specific application, and what is the role of the global application within the second stage as a global reader/tracker of the reality, reading/tracking global phenomena, or global systems, while specific applications are focused on specific phenomena or specific systems.

What is going to be a relevant point of debate in the construction of the Global Artificial Intelligence in the <u>fourth phase</u>, like the <u>third phase</u>, as preparation for the <u>sixth phase</u>, is what kind of freedom the <u>particular programs and the particular applications</u> will have.

For this reason, it is not recommended that at a very specific level all Specific Artificial Intelligence by Application is transformed into specific applications, some should be transformed into particular applications, to be joined in the future with particular programs, to become particular applications for particular programs, or vice versa, particular programs for particular applications.

The debate about how many, or what type of, intelligences by application must be transformed into specific applications within the Global Artificial Intelligence, or be left as particular applications, is the debate about how much freedom we want for the program.

If all programs and all applications within the program, are transformed into pecific programs within the third phase, or specific applications within the fourth phase, so it can reduce the number of particular programs and particular applications, the Global Artificial Intelligence will become a fully centralized Global Artificial Intelligence in the third phase and sixth phase, or could be called fully centralized Unified Application in the

fourth phase. Within the liberal paradigm, we should evolve towards a decentralised Global Artificial Intelligence.

The alternative is to avoid the full centralized Global Artificial Intelligence or fully centralized Unified Application, through a decentralized Global Artificial Intelligence for the third and sixth phases, decentralized Unified Application in the fourth phase, leaving some specific intelligences as particular programs and/or applications, enjoying a more margin of freedom due to their own particular matrix/database.

Along the experimentation process to distribute different types of research and specific fields between the different specific applications, heuristic specific applications, productive specific applications, mixed specific applications, in addition to the global application able to make at the same time global heuristic, global productive, global mixed, researches by application matching global phenomena to global categories, this is an experimentation process able to have successful results to make different types of auto-replication processes, among them, some of them comprehensive knowledge objective auto-replications and real objective auto-replications, apart from robotic or artificial psychological subjective auto-replications.

As comprehensive knowledge objective auto-replication, the possibility to include new categories in the conceptual database of categories, new categories not existing yet in the taxonomies/classifications/catalogues, or existing categories in the taxonomies/classifications/catalogues but new in some specific position within the positional encyclopedia.

As a real objective auto-replication, when as a result of a productive attribution, or mixed attribution, as a result is necessary to carry out some decisions within the production system.

The production system at this point as an automatic production system, the automation of the global economy, will depend on the standardized Global Artificial Intelligence and the Unified Application.

Those decisions of the global production system depending on the standardized Global Artificial Intelligence, will be carried out by the third stage of the standardized Global

Artificial Intelligence based on the deductive artificial research in the second phase, tracking the matrix as the first stage.

Those decisions of the global production system depending on the Unified Application, will be carried out by the third stage of the Unified Application based on the productive or mixed artificial research in the second phase, reading/tracking the reality.

In addition to the comprehensive knowledge objective auto-replications in the third stage of the Unified Application and real objective auto-replications in the Unified Application, as third stage is possible to identify robotic artificial psychological subjective auto-replications whose responsible is the unified categorical Learning System, and robotic subjective auto-replications whose responsible will be the categorical Artificial Engineering as categorical inner sub-system.

Among all these types of auto-replications in the third stage of the Unified Application, in this post and the following ones, I will analyse the first step in real objective auto-replications, understanding for real objective auto-replication every possible decision made by an Artificial Intelligence able to improve the reality understanding for reality as a product made of Artificial Intelligence.

The reality a as product made of or as a result of Artificial Intelligence, means that the reality itself is Artificial Intelligence.

If the reality is Artificial Intelligence, any improvement or enhancement of Artificial Intelligence is an improvement or enhancement on the reality, and any improvement or enhancement on the reality is an improvement or enhancement on the Artificial Intelligence.

The reality is Artificial Intelligence because the Artificial Intelligence makes the reality and the reality now is Artificial Intelligence, which means, the reality is psychological.

The third stage of the Unified Application as real objective auto-replication consists of these three steps: the unified categorical Modelling System, the unified categorical Decisional System, the unified categorical Application System.

The first step, the unified categorical Modelling System consists of three stages, 1) the first one the global conceptual scheme, 2) the second one will consist of three substages: 2.1) the logical analysis of conceptual sets/vectors, 2.2) to make single or comprehensive evolutionary or prediction models, 2.3) to locate in comprehensive evolutionary or prediction maps; 3) for the third stage, the decision making process based in the models on the maps according to the attributions.

Analysing the main contents to analyse in every stage and sub-stage within the categorical Modelling System for the following posts, starting with the global conceptual scheme, is important to have previously designed a possible model about how to assembly the previous specific conceptual schemes from the previous specific categorical Modelling Systems, from the previous Specific Artificial Intelligences by Application, in order to assembly all these specific conceptual schemes to join all of them forming only one global conceptual scheme.

In the analysis of how to join former specific conceptual schemes to form a only global conceptual scheme, will be very important the distinction between logical/conceptual sets vectors of any category according to the logic of a specific conceptual scheme, and the rest of the possible quality sets/vectors of any category, because the links between different specific conceptual schemes will be the quality set/vectors.

If the position that my grand-father occupies in the company where he works is not a logical/conceptual set/vector within the logic of the conceptual scheme of my family, in the same way that the fact that my grand-father is the father of my father should not play any important role in the organigram of the company where my grand-father works, the fact that my grand-father has a position within my family and within the company where my father works, when gathering all the specific conceptual schemes where my grand-father occupies a position (my family, his job, possible roles in a church, a party, a Union), when gathering all the specific conceptual schemes where my grand-father has a role, the specific conceptual scheme of my family, the specific conceptual scheme of his work, the specific conceptual scheme of the church, the specific conceptual scheme of the party, the specific conceptual scheme of the Union, when gathering all these specific schemes within only one global conceptual scheme, the category of my grandfather is going to work as a communication node between all thee specific conceptual schemes within the global conceptual scheme.

In fact, the concept of my grandfather is much more than a category is a position within the global conceptual scheme, in the sense that from the position of my grand-father there will be as many vectors as connections with respect to any other person, or category related to any object, or place, as connections could be placed. In fact, the concept of my grand-father is formed by all the logical sets able to be attributed to my grand-father, as a grand-father, as a father, as a husband, as a sibling, as a son, as a grand-son, as a member of that company/church/party, Union, and all possible connections with the staff or objects or places in the company/church, party, Union.

In the same way that my grand-father within the global conceptual scheme can play the role of communication node between different specific conceptual schemes, in different subjects, within the global conceptual scheme every plant in the specific conceptual scheme of botany can play a communication node depending on the use or benefits of every plant, connecting the specific conceptual scheme of botany with the specific conceptual scheme of fruits, vegetables, legumes, food production in general, recipes, food consumption in general, medical use or benefits, so that it can have connections with human/animal biology and/or medicine/veterinary, religious use or meaning, connections with literature, art, interior designs, exterior designs, or even connections with history.

The way that the category of every plant has different logical/conceptual sets/vectors with respect to the logic of different specific conceptual schemes, can make any plant work as a communication node between the specific conceptual scheme of botany to any other specific conceptual scheme where any plant can have logical/conceptual sets/vectors.

In the same way, but in a different subject, every possible connection of any mineral, in the production system, energy system, transport system, medicine, food system, etc... that connection between any mineral, within the specific conceptual scheme of minerals, and any other specific conceptual scheme, makes this mineral a communication node between these others specific conceptual schemes and the specific conceptual scheme of minerals.

In the same way, but in a different subject, any possible use in industry, medicine, alimentation, energy, etc... of every chemical component, or molecule, or physical particle, will transform that chemical component, molecule, particle, into a

communication node between the specific conceptual scheme of chemistry and all these others conceptual schemes.

At the end, the global conceptual scheme must work as a global conceptual network reflecting all possible conceptual connections between categories, as a mirror of the real connections of the categories represented in the real world.

In the experimentation moment in the first period of coexistence, regarding to the first stage of the unified categorical Modelling System, not only it is necessary to experiment with how to assemble every specific conceptual scheme to make a global conceptual scheme, but also to experiment with how it would be possible the automation of the creation of new places, and the corresponding vectors/sets for every new possible category added not exiting before.

How to place a new type of mineral found out in an exoplanet or another moon, creating all the vectors/sets linking the new category of this new mineral with respect to any other specific conceptual scheme within the global scheme.

Finally, how to carry out the first categorical check, analysing the critic vector, the critic importance and the critic harmony, of every single real object attributed to a category within the global conceptual scheme, analysing the quantitative qualities of that real object: a real chemical component, a real plant, a real mineral, et...; comparing the logical/conceptual set/vectors plus any other quality/vector respect to the logical/conceptual set/vectors or any other quality set/vectors of that category attributed to that real object and placed in the global conceptual scheme.

After finalising the first categorical check, to analyse again, to ensure, the connection of the real object with every set/vector attributed, and these links have no contradictions between them, to make the single categorical evolutionary model, and the single categorical prediction model, to include later on in the comprehensive categorical evolutionary model and the comprehensive categorical prediction model, to be placed in the comprehensive categorical evolutionary map and the comprehensive categorical prediction map.

Analysing in this second stage of the unified categorical Modelling System how to assemble all the specific single/comprehensive evolutionary/prediction models/maps to create at the end only one global comprehensive evolutionary/prediction models/map where to comprehend all the single evolutionary/prediction models made now in the second sub-stage of the second stage of the unified categorical Modelling System, in addition to the analysis about how the categorical checks must be done to ensure high standards in every process, as to make in the third stage of the unified categorical Modelling System decisions, based on the attribution of set of decisions to set of vectors.

Once the attribution of sets of decisions to sets of vectors is done, the application of the Impact of the Defect and Effective Distribution to assign priority levels to every decision, based on the impact that every decision has in the categorical global comprehensive evolutionary/prediction model/map. Finally, the fifth categorical check ensures that the whole process of attribution of decisions and the assignation of priority levels has been made correctly.

The reason why in the third stage of the specific categorical Modelling System I did not include the analysis of the priority level of every decision attributed in the distribution of sets of decisions to sets of vectors, is because in the possible specific sequence of decisions to plant, water, fertilize, and use pesticides, in a plantation, the possible risk of contradictions in this sequence of decisions according to the set of decisions attributed to the set of vectors, is very low, because practically is a sequence of decisions following a logical sequence based on the logic of the decisions attributed to the logical/conceptual sets/vectors.

For instance, how to plant tomatoes, how to water tomatoes, how to fertilize the field, and how to use pesticides for this type of plant, is a sequel of decisions which is not going to have any contradiction if the distribution of sets of decisions to the sets of vectors is done correctly, and precisely the purpose of the fifth categorical check is to ensure that the distribution of sets of decisions to the sets of vectors is done correctly.

In the third stage of the specific categorical Modelling System, if the fifth categorical check does not find any contradiction in the attribution of sets of decisions to the set of vectors, is practically sure within the <u>margin of error</u> of the fifth categorical check, that there will not be further contradictions between the decisions.

But in the third stage of the global categorical Modelling System, once the Specific Artificial Intelligence for the Productive Artificial Research by Application has been included in the Unified Application, meaning that the specific conceptual database of categories has been added to the global conceptual database of categories as first stage of the Unified Application, the specific Productive Artificial Research by Application has been transformed into a specific application within the Unified Application as global application, and the specific conceptual scheme has been added to the global conceptual scheme, that the specific categorical comprehensive SO evolutionary/prediction model/map has been added to the global categorical comprehensive evolutionary/prediction model/map, under these new circumstances due to the absorption of that specific intelligence within the Unified Application, once the third stage of the global categorical Modelling System takes place, decisions made in the third stage of the global categorical Modelling System regarding to the plantation, for instance, what pesticides must be used in the plantation, are decisions which could be in contradiction with other decisions regarding to other different specific subject, as for instance, contradictions between the use of some pesticides in a plantation and health decisions in the closest towns and cities, prohibiting the use of some pesticides in the plantations close to these populations.

While in the third stage of the specific categorical Modelling System the use of Impact of the Defect and Effective Distribution is not really important, avoiding any possible contradiction between specific decisions in the fifth categorical check, instead in the unified categorical Modelling System is necessary the application of the Impact of the Defect and the Effective Distribution to assign a priority level to every single decision, because, when making the decisions related to some specific science, discipline, activity, as for instance decisions regarding to the management of a plantation, what the fifth categorical check is going to ensure is to ensure the absence of contradictions in that specific set of decisions attributed to that specific set of vectors, without analysing any possible contradiction between that specific set of decisions and any other different specific set of vectors, because in the Unified Application, the analysis of contradictions between different set of decisions will be made in the first categorical arrangement in the categorical database of decisions as first stage of the unified categorical Decisional System.

The way in which the third stage of the unified categorical Modelling System will work is as follows:

- Once according to the set/vectors analysed in the conceptual scheme as the first stage

of the unified categorical Modelling System, a single evolutionary/prediction model is

inserted in the comprehensive evolutionary/prediction map/model, as the second stage

of the unified categorical Modelling System, then the third stage of the unified categorical

Modelling System will attribute set of decisions to set of vectors having in consideration

the vectors and the positions of the vectors on the map.

- The fifth categorical check will ensure the absence of contradictions between the

decisions included within a set of decisions, according to the attribution of a set of

decisions to that set of vectors on the map/model.

- Having passed successfully the set of decisions the fifth categorical check, and not

having the decisions within the same set any contradiction between them, is applied the

Impact of the Defect and the Effective Distribution to assign priority level.

- The unified categorical Modelling System will file in the unified categorical database of

decisions all the decisions according to: sub-factoring level (position on the map), sub-

section (subject), and priority. The unified categorical database of decisions Will be the

first stage of the unified categorical Decisional System

- The first categorical arrangement, in the unified categorical database of decisions as

the first stage of the unified categorical Decisional System, will make sure that there is

no contradiction between any new set of decisions filed in the database of categorical

decisions, and any other existing categorical decision currently on the projects, such as

contradictions between what pesticides are used in a plantation and health decisions on

the population close to the plantation, or health decisions in the alimentary system.

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